

Abstract

The invention provides a water-cooled mold for continuous casting. The mold comprises two water-cooled wide copper plates which are arranged opposite to each other in front and back direction and two water-cooled narrow copper plates which are arranged opposite to each other in left and right direction. The upper portion of the cavity of the mold is a sprue area and the lower portion of the cavity is a mold cavity area. The sprue area is gradually narrowed in the casting direction and smoothly transited into the mold cavity, corresponding to the shape of a slab to be cast. The inside surfaces of the water-cooled narrow copper plates are smooth planar surface. A portion of the inside surface of the water-cooled wide copper plates in the sprue area is a curved surface and a portion of the same in the mold cavity area is a planar surface. The curved surface portion and the planar surface portion form a continuous smooth surface. Using the mold of the invention, it can be ensured to eliminate surface defects of a slab, to attain a good slab surface quality, to minimize uneven wear of a mold and to extend mold lifecycle.